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EXAMINER

CUFF, MICHAEL A

ART UNIT	PAPER NUMBER
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3627

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/389,939

Applicant(s)

GREEN, PAUL T.

Examiner

Michael Cuff

Art Unit

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MCC

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-29 and 42-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-29 and 42-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgements

1. Applicant's amendment filed January 14, 2004 (Paper No. 17) is acknowledged.

Accordingly, claims 18-29 and 42-47 remain pending.

2. The Declaration of Matthew O. Ward filed January 14, 2004 (Paper No. 18) is also acknowledged.

Claim Rejections - 35 USC §101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 18-29 and 42-47 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

5. For a claimed invention to be statutory, the claimed invention must be within the technological arts. See *In re Musgrave*, 431 F.2d 882, 167 USPQ 280, 289-90 (C.C.P.A. 1970); and *In re Johnston*, 502 F.2d 765, 183 USPQ 172, 177 (C.C.P.A. 1974). Mere abstract ideas (*i.e.*, laws of nature, natural phenomena) that do not apply, involve, use, or advance the

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technological arts fail to promote the “progress of science and the useful arts”¹ and are therefore non-statutory subject matter.²

For a process, the claimed process must somehow apply, involve, use, or advance the technological arts. Mere intended or nominal use of a component—albeit within the technological arts—does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. In other words, if the invention in the body of the claim is not tied to a technological art, environment, or machine, the claim is non-statutory. *Ex parte Bowman*, 61 USPQ2d 1665, 1671 (B.P.A.I. 2001) (Unpublished). See also MPEP §2106 IV B. 2 (b) ii). The Examiner recommends (by way of example only) recitation of a computer within the body of the claim if the specification supports such an amendment.

6. In particular, claims 18 and 24 fail to produce a useful, concrete, and tangible result. The steps of “presenting,” “presenting,” “executing,” and “repeating” fail this test. By way of example only, the Examiner suggests adding a final step such as ‘outputting the result’ or similar claim language if Applicant’s specification so permits.

7. Claim 42 also fails this test since “presenting,” “identifying,” and “presenting” fail to produce a useful, concrete and tangible result. Again, and by way of example only, the Examiner suggests adding a final step such as ‘outputting the result’ or similar claim language if Applicant’s specification so permits.

¹ It is the Examiner’s position that “technological arts” is synonymous with “useful arts” as stated in the U.S. Constitution, Art. I, §8. See *In re Waldbaum*, 457 F.2d 997, 173 USPQ 430, 434 (C.C.P.A. 1972).

² *E.g.*, the physical sciences: statutory; *c.f.*, social sciences: non-statutory

8. As currently claimed the “presenting” and “identify” in claim 42 could be performed by a user pointing at various elements on a chart.

Claim Rejections - 35 USC §112 2nd Paragraph

9. The following is a quotation of the 2nd paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 24-29 are rejected under 35 U.S.C. §112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with errors. Some examples follow.

11. Claims 18-29 and 42-47 are indefinite because the scope of their subject matter remains unclear. See the §101 rejections above. If Applicant successfully overcomes the §101 rejections noted above, this particular §112, 2nd paragraph rejection will be withdrawn.

12. In claim 24, it is unclear whether the Applicant is claiming the subcombination of “[a] memory media” or the combination of memory media *and* a computer. Because claims 25-28 recite “the computer media” or the “memory media,” this is evidence that Applicant intends to only claim a media in claim 24. However the bodies of the claim recite “presenting” which computer readable media are physically incapable of doing. The claims are therefore indefinite. If Applicant intends to claim only the subcombination (*i.e.* media), the claim must be amended to remove any positive recitation of the combination (*i.e.* the computer). Alternatively, if Applicant intends to claim the combination, the preamble of the claims must be amended to be consistent with the language in the body of the claim.
-

13. Also in claim 24, Applicants has failed to clearly link and associate the corresponding structure of it is unclear what is the corresponding structure “means for controller said computer.” Applicant is reminded, “For claim clauses containing functional limitations in ‘means for’ terms pursuant to §112 ¶ 6, the claimed function and its supporting structure in the specification must be presented with sufficient particularity to satisfy the requirements of §112 ¶ 2.” *S3 Inc. v. nVIDIA Corp.*, 259 F.3d 1364, 1367, 59 USPQ2d 1745, 1747 (Fed. Cir. 2001) (citations omitted). In other words, “[f]ailure to describe adequately the necessary structure, material, or acts corresponding to a means-plus-function limitation in the written description means that the drafter has failed to comply with Section 112, Para. 2.” *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1380 53 USPQ2d 1225, 1229 (Fed. Cir. 1999) citing *In re Dossel*, 115 F.3d 942, 945, 42 USPQ2d 1881, 1884 (Fed. Cir. 1997)). If Applicant can clearly link and associate the corresponding structure to the recited function, this particular §112 2nd paragraph rejection will be withdrawn.

14. In claim 43, the phrase “in close proximity thereto” is indefinite. It is not known if the filter condition is displayed in close proximity to each and every display element or just a single display element. Moreover, it is unclear what encompasses “close proximity.”

15. Claim 45 is indefinite. Applicant argues that using his definition, a histogram must have bars. However Applicant is reminded that “there is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims. To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.” *Toro Co. v. White Consolidated Industries, Inc.*, 199 F.3d 1295, 53 USPQ2d 1065, 1070 (Fed. Cir. 1999). Because Applicant has argued a histogram must have bars and claim 45 adds bars to the display

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elements, claim 45 is inconsistent with Applicant's definition. Should Applicant's definition prevail, the Examiner adopts the presumption that the difference is significant and the scope of claim 45 is different as well.

16. The Examiner finds that because particular claims are rejected as being indefinite under 35 U.S.C. §112 2nd paragraph, it is impossible to properly construe claim scope at this time. See *Honeywell International Inc. v. ITC*, 68 USPQ2d 1023, 1030 (Fed. Cir. 2003) ("Because the claims are indefinite, the claims, by definition, cannot be construed."). However, in accordance with MPEP §2173.06 and the USPTO's policy of trying to advance prosecution by providing art rejections even though these claim are indefinite, the claims are construed and the art is applied *as much as practically possible*.

Claim Rejections - 35 USC §102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. . . .

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 42 and 44-49 are rejected under 35 U.S.C. §102(b) as being anticipated by Marshall (U.S. 5,774,878). Marshall discloses, figures 2, 3a, 9 and 10, a virtual reality generator for use with financial information. Figure 2 is an example of the interface panel generated by the

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user interface module. (presenting on a viewing screen a plurality of investment parameters, which are selectable by the user as, proposed filter conditions (parameters). Figure 3a shows a population chart (histogram, frequency of occurrence groupings, some figures are bar shaped) of financial instruments in different categories. Figures 9 and 10 show the ability to add and delete filter conditions. (capability of many different filter passes, i.e. 1 to n, actuators) Figure 10 also shows formula builders (plurality of limiters).

Claim Rejections - 35 USC §103

19. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 42 and 44-49, as understood by the Examiner, are alternatively rejected under 35 U.S.C. §103(a) as being unpatentable over Marshall.³ It is the Examiner's principle position that the claims are anticipated because a histogram is inherently shown in Marshall.

However if not inherent, the missing elements in Marshall are only found in the nonfunctional descriptive material and are not functionally involved in the steps claimed (i.e. the steps of "presenting" is in no way dependent upon the content of what is presented). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the content of Marshall with any type of content. The descriptive material will not distinguish the claimed invention over the prior art in terms of patentability because the

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data does not functionally relate to the steps in the method. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). See also MPEP §2106 IV B.

21. Claim 43 is rejected under 35 U.S.C. §103(a) as being unpatentable over Marshall in view of Maggioncalda et. al. (U.S. 5,918,217) (“Maggioncalda”). Marshall discloses as discussed above but does not directly disclose specifying that the parameter limiter and the histogram are displayed on the same screen or at least in close proximity.

Maggioncalda teaches in Figure 4, a user interface for a financial advisory system where the filter conditions are on the same screen as the resultant bar graph in order to provide the ease of seeing both without flipping from screen to screen.

Based on the teaching of Maggioncalda in combination with the other art of record, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Marshall’s virtual reality generator to provide the user interface module on the same viewing screen as the population chart in order to provide the ease of seeing both without flipping from screen to screen. In virtual reality scenario, this could be provided as a “pop-up” screen in the virtual environment.

22. Claims 18-21 and 24-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Marshall in view of Chang et. al. (U.S. 4,221,003)(“Chang”). Marshall discloses as discussed above but does not directly disclose retrieving data such that the population charts differ. Chang teaches (at column 3, lines 35-40) a bubble domain relational database system where, for a subsequent associative search, comparisons will be made only on the data for which a marker bit

³ See MPEP §2112 expressly authorizing alternative §102/§103 rejections when the question of inherency is present in the anticipation rejection.

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has been indicated in the dynamic indexing loop. (*i.e.* population chart differs) In this manner, the search time is minimized, since it is not necessary to search through data items, which do not meet initial criteria.

Based on the teaching of Chang in combination with the other art of record, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Marshall's input module and analytic system (not shown) to incorporate the data extraction method of Chang—including population chart differences—in order to minimize search time.

23. Claims 22-23 and 28-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Marshall/Chang combination and in further view of Maggioncalda. The Marshall/Chang combination discloses as discussed above but does not directly disclose specifying that the parameter limiter and the histogram are displayed on the same screen or at least in close proximity. Maggioncalda teaches (in Figure 4) a user interface for a financial advisory system where the filter conditions are on the same screen as the resultant bar graph in order to provide the ease of seeing both without flipping from screen to screen.

Based on the teaching of Maggioncalda in combination with the other art of record, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Marshall/Chang combination's virtual reality generator to provide the user interface module on the same viewing screen as the population chart in order to provide the ease of seeing both without flipping from screen to screen. In virtual reality, this could be provided as a "pop-up" screen in the virtual environment.

Claim Interpretations Issues

24. Because the definition of histogram is in dispute, the Examiner has again carefully reviewed the specification and prosecution history. After this review, the Examiner is unaware of any desire—either expressly or implicitly—by Applicant to be his own lexicographer and to define a claim term to have a meaning other than its ordinary and accustomed meaning. This includes the term ‘histogram.’ Therefore and except for the “means for” phrases, the Examiner starts with the heavy presumption that all claim limitations are given their ordinary and accustomed meaning. See *Bell Atlantic Network Services Inc. v. Covad Communications Group Inc.*, 262 F.3d 1258, 1268, 59 USPQ2d 1865, 1870 (Fed. Cir. 2001) (“[T]here is a heavy presumption in favor of the ordinary meaning of claim language as understood by one of ordinary skill in the art.”); *CCS Fitness Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366, 62 USPQ2d 1658, 1662 (Fed. Cir. 2002) (There is a “heavy presumption that a claim term carries its ordinary and customary meaning.”). See also MPEP 2111.01 and *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).⁴

In accordance with the ordinary and accustomed meaning presumption and except for the “means for” phrases, during examination the claims are interpreted with their “broadest reasonable interpretation” *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). See also MPEP §2111.

However, if Applicant disagrees with the Examiner and has either (a) already used lexicography or (b) wishes to use lexicography and therefore (under either (a) or (b)) desires a

⁴ It is the Examiner’s position that “plain meaning” and “ordinary and accustomed meaning” are synonymous. See e.g. *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001) (“[A]ll terms in a patent claim are to be given their plain, ordinary and accustomed meaning . . .”).

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claim limitation to have a meaning other than its ordinary and accustomed meaning, the Examiner respectfully requests Applicant in his next response to expressly indicate⁵ the claim limitation at issue and to show where in the specification or prosecution history the limitation is defined. Such definitions must be clearly stated in the specification or file history. *Bell Atlantic*, 262 F.3d at 1268, 59 USPQ2d at 1870, (“[I]n redefining the meaning of particular claim terms away from the ordinary meaning, the intrinsic evidence must ‘clearly set forth’ or ‘clearly redefine’ a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term”).⁶ The Examiner cautions that no new matter is allowed.

Applicant is reminded that failure by Applicant in his next response to properly traverse this issue in accordance with 37 C.F.R. §1.111(b) or to be non-responsive to this issue entirely will be considered a desire by Applicant to forgo lexicography in this application and to continue

⁵ “Absent an *express intent* to impart a novel meaning, terms in a claim are to be given their ordinary and accustomed meaning. [Emphasis added.]” *Wenger Manufacturing Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1232, 57 USPQ2d 1679, 1684 (Fed. Cir. 2001) (citations and quotations omitted). “In the absence of an *express intent* to impart a novel meaning to claim terms, an inventor’s claim terms take on their ordinary meaning. We indulge a heavy presumption that a claim term carries its ordinary and customary meaning. [Emphasis added.]” *Teleflex Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1325, 63 USPQ2d 1374, 1380 (Fed. Cir. 2002) (citations and quotations omitted).

⁶ See also *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582, 39 USPQ2d 1573, 1576 (Fed. Cir. 1996), (“[A] patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, *as long as* the special definition of the term is *clearly stated* in the patent specification or file history. [Emphasis added.]”); *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998) (“Such special meaning, however, must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention.”). See also MPEP §2111.01, subsection titled “Applicant May Be Own Lexicographer” and MPEP §2173.05(a) titled “New Terminology.”

having the claims interpreted with their broadest reasonable interpretation.⁷ Additionally, it is the Examiner's position that the above requirements are reasonable.⁸ Unless expressly noted otherwise by the Examiner, the preceding discussion on claim interpretation principles applies to all examined claims currently pending.

25. To the extent that the Examiner's interpretations are in dispute with Applicant's interpretations, the Examiner hereby adopts the following definitions—under the broadest reasonable interpretation standard—in all his claim interpretations.⁹ Moreover, while the following list is provided in accordance with *In re Morris*, the definitions are a guide to claim terminology since claim terms must be interpreted in context of the surrounding claim language.¹⁰ Finally, the following list is not intended to be exhaustive in any way:

Server: "2. On the Internet or other network, a computer or program that responds to commands from a client." Computer Dictionary, 3rd Edition, Microsoft Press, Redmond, WA,

⁷ See 37 C.F.R. §1.104(c)(3) which states in part: "the examiner may rely upon admissions by applicant . . . as to *any matter* affecting patentability . . . [Emphasis added.]"

⁸ The Examiner's requirements on this matter are reasonable on at least two separate and independent grounds. First, the Examiner's requirements are simply an express request for clarification of how Applicant intends his claims to be interpreted so that lexicography (or even an *attempt* at lexicography) by Applicant is not inadvertently overlooked by the Examiner. Especially the term 'histogram.' Second, the requirements are reasonable in view of the USPTO's goals of compact prosecution, productivity with particular emphasis on reductions in both pendency and cycle time, and other goals as outlined in the USPTO's The 21st Century Strategic Plan, February 3, 2003 available at www.uspto.gov/web/offices/com/strat21/index.htm (last accessed April 5, 2004).

⁹ While most definition(s) are cited because these terms are found in the claims, the Examiner may have provided additional definition(s) to help interpret words, phrases, or concepts found in the definitions themselves or in the prior art.

¹⁰ See e.g. *Brookhill-Wilk I LLC v. Intuitive Surgical Inc.*, 334 F.3d 1294, 1300, 67 USPQ2d 1132, 1137 (Fed. Cir. 2003) (abstract dictionary definitions are not alone determinative; "resort must always be made to the surrounding text of the claims in question").

1997.¹¹ **Client**: “3. On a local area network or Internet, a computer that accesses shared network resources provided by another computer (called a server).” *Id.* **Computer**: “Any machine that does three things: accepts structured input, processes it according to prescribed rules, and produces the results as output.” *Id.*

Present “b : to bring to someone’s attention” Merriam-Webster’s Collegiate Dictionary, 10th Edition, Merriam-Webster Inc., Springfield, M.A., 1997.

Histogram “Measured or generated data can be grouped into *bins*, i.e. discretized by classifying into groups each characterized by a range of values in characteristic variables. The resulting graphical representation, usually limited to one or two variables, is called a (one- or two-dimensional) histogram. This process results in a certain loss of information compared to scatter diagrams, but is frequently necessary for the purpose of showing the statistical properties of data and in applying some calculational methods.” *The Data Analysis Briefbook*.¹²

26. In claims 18-23 and 42-49, Applicant recites “A method of” in independent claims 18 and 43 and because the corresponding dependent claims each recite “The method . . . ,” the

¹¹ Based upon Applicant’s disclosure, the art of record, and the knowledge of one of ordinary skill in this art, the Examiner finds that the *Microsoft Press Computer Dictionary* is an appropriate technical dictionary known to be used by one of ordinary skill in this art. See *e.g. Altiris Inc. v. Symantec Corp.*, 318 F.3d 1363, 1373, 65 USPQ2d 1865, 1872 (Fed. Cir. 2003) where the Federal Circuit used the *Microsoft Press Computer Dictionary* (3d ed.) as “a technical dictionary” to define the term “flag.” See also *In re Barr*, 444 F.2d 588, 170 USPQ 330 (CCPA 1971)(noting that its appropriate to use technical dictionaries in order to ascertain the meaning of a term of art) and MPEP §2173.05(a) titled ‘New Terminology.’

¹² Available at <http://rkb.home.cern.ch/rkb/titleA.html>, last accessed April 4, 2004.

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Examiner finds that claims 18-23 and 42-49 are directed to the 35 U.S.C. §101 category of a process.¹³ The Examiner makes this finding because it clearly effects claim interpretation.

Specifically, Applicant is reminded that regarding the structural limitations in process claims, “it is generally the rule that patentability of a method claim must rest on the method steps recited, not on the structure used, unless that structure affects the method steps.” *Leesona Corp. v. US*, 530 F.2d 896, 908 (US Ct Clms 1976). In other words, “[t]o be entitled to such [patentable] weight in method claims, the recited structural limitations therein must affect the method in a manipulative sense and not to amount to the mere claiming of a use of a particular structure” *Ex Parte Pfeiffer*, 135 USPQ 31, 33 (B.P.A.I. 1961).

27. Also regarding claims 18-23 and 42-49, Applicant is reminded that functional recitation(s) using the word “for,” “of,” or other functional terms (*e.g.* “of searching a universe of financial instruments” as recited in claim 18) have been considered but given less patentable weight¹⁴ because they fail to add any steps and are thereby regarded as intended use language. A recitation of the intended use of the claimed invention must result in additional steps. See *Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc.*, 246 F.3d 1368, 1375-76, 58 USPQ2d 1508, 1513 (Fed. Cir. 2001) (Where the language in a method claim states only a purpose and intended result, the expression does not result in a manipulative difference in the steps of the claim.).

¹³ See 35 U.S.C. §101 (1994) (“Whoever invents or discovers any new and useful process . . . may obtain a patent therefor.”); and 35 U.S.C. §100(b) (1994) (“The term ‘process’ means process, art or method”).

¹⁴ See *e.g. In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983)(stating that although all limitations must be considered, not all limitations are entitled to patentable weight).

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28. Regarding claims 24-29, Applicant is also reminded that functional recitations using the word “for” only (*i.e.* not “means for”), “adapted to,” or other functional terms (*e.g.* see claim 24 which recites “for controlling a computer to search a universe of financial instruments”) have also been considered but are given little patentable weight¹⁵ because they fail to add any structural limitations and are thereby regarded as intended use language. A recitation of the intended use in a product claim must result in a structural difference between the claimed product and the prior art in order to patentably distinguish the claimed product from the prior art. If the prior art structure is capable of performing the intended use, then it reads on the claimed limitation. *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) (“The manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself.”); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). See also MPEP §§ 2114 and 2115.

29. Additionally, the Examiner notes that “the PTO and the CCPA acknowledged product-by-process claims as an exception to the general rule requiring claims to define products in terms of structural characteristics.” *Atlantic Thermoplastics Co. v. Faytex Corp.*, 970 F.2d 834, 845, 23 USPQ2d 1481, 1490 (Fed. Cir. 1992) (hereinafter “*Atlantic Thermoplastics v. Faytex I*”). Furthermore, the Federal Circuit “acknowledges that it has in effect recognized . . . product-by-process claims as exceptional.” 970 F.2d at 847, 23 USPQ2d at 1491.

Because of this exceptional status, the Examiner has carefully reviewed claims 18-29 and 42-47 and it is the Examiner’s position that the claims *do not* contain any product-by-process limitations whether in a conventional format or otherwise. If Applicant disagrees with the Examiner, the Examiner respectfully requests Applicant in his next response to expressly point out any product-by-process claim(s) and their limitations so that they may be afforded their

¹⁵ *Id.*

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exceptional status and treated accordingly. Applicant is reminded that “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself.” *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted).¹⁶ Failure by Applicant in his next response to also address this issue in accordance with 37 C.F.R. §1.111(b) or to be non-responsive to this issue entirely will be considered intent by Applicant *not* to recite any product-by-process limitations.

Response to Arguments

30. Applicant's arguments filed January 14, 2004 (part of Paper No. 17) have been fully considered but they are not persuasive. Applicant has misconstrued the claim interpretation principles applied during ex parte examination. Applicant seems to instead be applying the claim interpretation principles of *inter partes litigation* (i.e. a patent infringement suit).

31. Applicant argues that Marshal does not disclose a histogram. Moreover, the Examiner has considered the Declaration of Matthew O. Ward. Based upon the entire record, the Examiner maintains his position that Marshall discloses a histogram. Applicant's argument and declaration has been considered but are nevertheless unpersuasive.

32. In particular the Examiner points to the The Data Analysis Briefbook as a source to support his interpretation of what is a histogram. See *Morris*, 127 F.3d at 1056, 44 USPQ2d at 1029, (“Absent an express definition in their specification, the fact that appellants can point to definitions or usages that conform to their interpretation does not make the PTO's definition unreasonable when the PTO can point to other sources that support its interpretation.”).

¹⁶ See also MPEP §2113.

33. Applicant's remaining arguments have been considered but are found unpersuasive.

Conclusion

34. The following two (2) citations to the Manual of Patent Examining Procedure ("MPEP") apply to this Office Action: MPEP citations to Chapters 200, 700, 1800, and 2100 are from the MPEP 8th Edition, Rev 1, February 2003. All remaining MPEP citations are from MPEP 8th Edition, August 2001.

35. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

36. In accordance with *In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002), the Examiner finds that the reference *How Computers Work* Millennium Ed. by Ron White is additional evidence of what is basic knowledge or common sense to one of ordinary skill in this art. The reference is cited in its entirety. Moreover, because the reference is directed towards beginners (see *e.g.* "User Level Beginning . . ."), because of the reference's basic content (which is self-evident upon review of the reference), and after further review of both the intrinsic evidence of record and the art of record in conjunction with the factors as discussed in MPEP §2141.03 (where practical), the Examiner finds that the reference is primarily directed towards those of low skill in this art. Because the reference is directed towards those of low skill

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in this art, the Examiner finds that one of ordinary skill in this art must—at the very least—be aware of and understand the knowledge and information contained within the reference.

37. All factual findings and conclusions of law in this Office Action are based the entire record. Although the Examiner may have singled out various items of evidence (*e.g.* Marshall) and expressly noted their content, the other documents now of record were also considered and applied when making the Examiner's factual findings and conclusions of law. Moreover, because many of the canons of claim construction are generally viewed from a person of ordinary skill in the art,¹⁷ the other documents of record not specifically mentioned in the prior art rejection(s) above were nevertheless used in the Examiner's deliberative process to assess, *inter alia*, the definiteness of the claims, the level of skill in the art, and ultimately the patentability of the claimed invention.

38. In accordance with the USPTO's goals of customer service, compact prosecution, and reduction of cycle time, the Examiner has made every effort to clarify his position regarding claim interpretation and any rejections or objections in this application. Furthermore, the Examiner has again provided Applicants with notice—for due process purposes—of his position regarding his factual determinations and legal conclusions. The Examiner notes and thanks Applicant for his "Remarks" (Paper No. 17 beginning on page 7) traversing the Examiner's positions on various points. If Applicant disagrees with any additional factual determination or legal conclusion made by the Examiner in this Office Action whether expressly stated or

¹⁷ See *e.g. Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986)(noting that the definiteness inquiry focuses on whether those skilled in the art would understand the scope of the claim).

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implied,¹⁸ the Examiner respectfully reminds Applicant to properly traverse the Examiner's position(s) in accordance with 37 C.F.R. §1.111(b) in his next properly filed response. By addressing these issues now, matters where the Examiner and Applicant agree can be eliminated allowing the Examiner and Applicant to focus on areas of disagreement (if any) with the goal towards allowance in the shortest possible time. If Applicant has any questions regarding the Examiner's positions or has other questions regarding this communication or even previous communications, Applicant is strongly encouraged to contact Examiner Michael Cuff whose telephone number is (703) 308-0610. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's immediate supervisor, Robert Olszewski, can be reached at (703) 308-5183. The fax number for facsimile responses is now (703) 872-9306.

A. Fischer 4/4/04
ANDREW J. FISCHER
PATENT EXAMINER
for

Michael Cuff
Primary Examiner
Art Unit 3627

ajf
April 4, 2004

¹⁸ *E.g.*, if the Examiner rejected a claim under §103 with two references, although not directly stated, it is the Examiner's implied position that the references are analogous art.